

# **Healthcare Website Design for the Elderly: Improving Usability**

**Raymond L Ownby, MD, PhD, MBA  
Sara J. Czaja, PhD**

**Center for Research and Education in Aging and Technology Enhancement (CREATE)  
Department of Psychiatry and Behavioral Sciences  
University of Miami School of Medicine  
Miami, Florida**

## **ABSTRACT**

*Research shows that the elderly often use the Internet to search for healthcare information. Other studies show that many widely-implemented features of web site design may interfere with elders' ability to access the information they seek. This poster will illustrate principles of elder-friendly web site design by presenting a demonstration web site that provides information about neurological and psychiatric conditions for adults 50 years of age and older.*

## **BACKGROUND**

Search for healthcare information is one of the most common uses of the Internet by the elderly. Previous research by our group (e.g., Ownby & Czaja, 2003) has shown that current health care web site design practices may result in sites that are difficult for the elderly to use. Our research suggests there are three main categories of design problems, each of which arises from ability changes with aging: (1) visual, (2) motor, and (3) cognitive. Visual problems arise for the elderly, for example, when type faces are too small or in unusual fonts. Motor problems occur when navigation elements are too small or too closely spaced. Cognitive problems exist when site navigation imposes excessive demands on elders' reduced working memory capacity.

## **METHOD**

In previous studies, we reviewed various sources, including cognitive aging research and usability studies, to develop a website evaluation instrument. This instrument has in turn been used to evaluate the usability of healthcare sites for the elderly and now has been used as a guide for developing a demonstration website.

## **RESULTS**

This poster will present an overview of design issues and illustrate possible solutions. Alternative ways of creating navigation elements such as buttons will be shown, and overall site design will be illustrated. The complete site will be available to interested viewers on a portable computer.

## **CONCLUSIONS**

Designing web sites that will effectively present healthcare information to the elderly that are also usable presents specific challenges for designers. Usability guidelines provide suggestions for direction in site design. This demonstration site illustrates specific techniques that designers can implement to make healthcare web sites more usable for elderly visitors.